



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,481	09/22/2003	Peter Oberhans	10901/52	2928

26646 7590 06/21/2006

KENYON & KENYON LLP
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

LAU, TUNG S

ART UNIT	PAPER NUMBER
----------	--------------

2863

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,481

Applicant(s)

OBERHANS ET AL.

Examiner

Tung S. Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date See office action.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/18/2006 has been entered.

Information Disclosure Statement

2. Information Disclosure Statement filed on 05/18/2006 is acknowledged by the examiner; A copy of a signed PTO-1449 attached with this office action.

Foreign priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d) or (f), which papers have been placed of record in the file.

Drawings Objection

4. The drawings are objected to under 37 CFR 1.84 (o)(n) (p) which requires legends on drawings in figure 1 the generic blocks 2, 11, 1, 5, 12, 3, 4 and 13. Should be provided with descriptive labels (e.g. software protocol, transmitter, frequency hopper, receiver, etc), the block before unit 2 is not labeled, correction is required.

Arrangement of the Specification

5. As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH
OR DEVELOPMENT.

(d) THE NAMES OF THE PARTIES TO A AGREEMENT

(e) INCORPORATION-BY-REFERENCE OF JOINT RESEARCH

MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

Art Unit: 2863

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A

“Sequence Listing” is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required “Sequence Listing” is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 101

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 101 that form the basis for the rejections under this section made in this Office action:

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In claims 1-10, the method for correcting position dependent scanning signals of an incremental position transducer using different signal feed. These claims appear to merely describe signal and mathematical transformation and lack of concrete and tangible result. The practical application of the claimed invention cannot be realized until the information determined is conveyed to the user. For the result to be tangible it would need to output to a user or stored for later use. Hence the claims are treated as nonstatutory functional descriptive material (See MPEP § 2106 and OG Notices: 22 November 2005, Guidelines for Subject Matter Eligibility).

The claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02, (“the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete and tangible result’ – a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.”).

The purpose of this requirement is to limit patent protection to inventions that possess a certain level of “real world” value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply

Art Unit: 2863

a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. See In re Warmerdam, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). See also Schrader, 22 F.3d at 295, 30 USPQ2d at 1459. Nor can one patent "a novel and useful mathematical formula," Flook, 437 U.S. at 585, 198 USPQ at 195; electromagnetism or steam power, O'Reilly v. Morse, 56 U.S. (15 How.) 62, 113-114 (1853);

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-3 and 6-12 are rejected under 35 U.S.C. 102(a) as being anticipated by Hagl (U.S. Patent 6, 418,396, Date of the Patent Jul. 9, 2002).

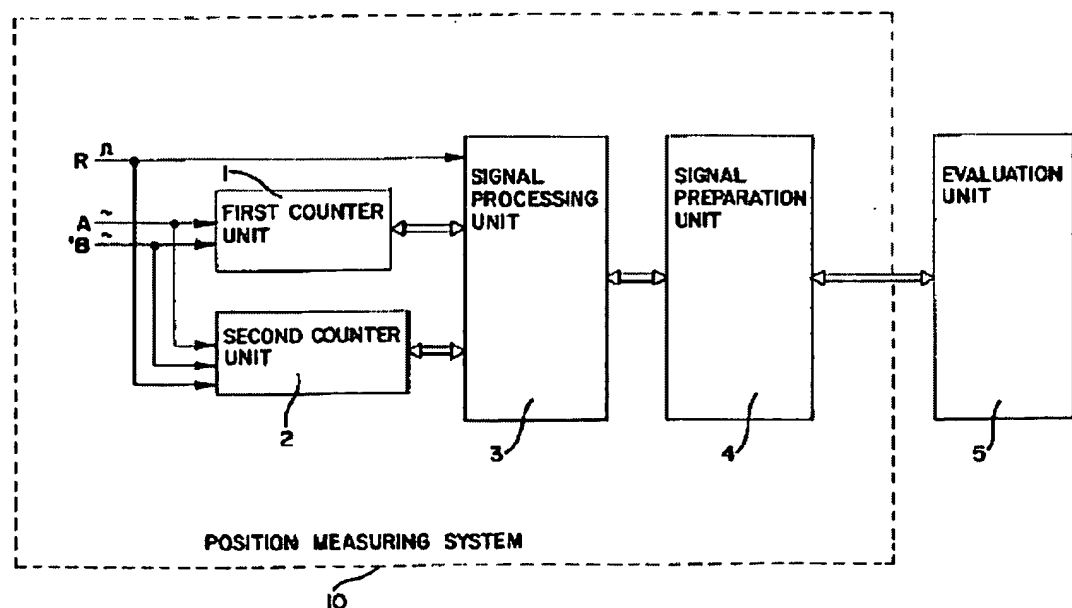
Regarding claim 1:

Hagl discloses a method for correcting position dependent scanning signals of an incremental position transducer for measuring position (fig. 1,

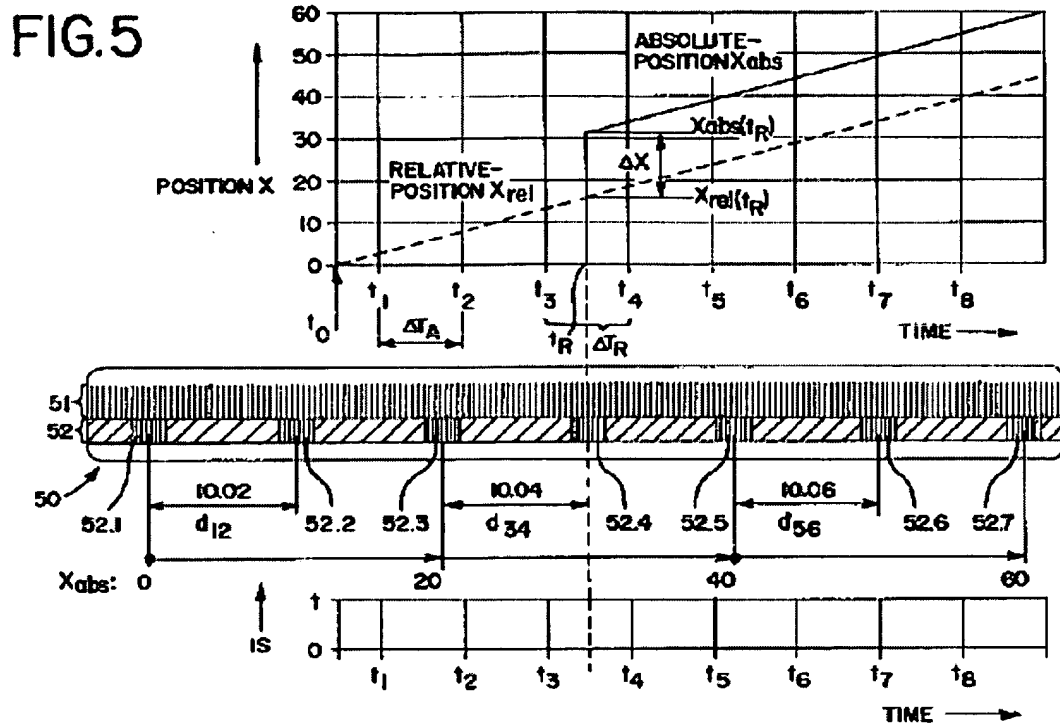
Art Unit: 2863

unit 1, 2), the position dependent scanning signals (fig. 1, unit 1, 2) having deviations from ideal signals expected by a downstream evaluation unit (abstract), comprising: feeding the position dependent scanning signals of the incremental position transducer to a correction unit in response to a signal request (fig. 1, unit 5, Col. 4-5, Lines 57-19); the incremental position transducer including a periodic scale structure scanned by a scanning unit (Col. 1-2, Lines 55-3); linking the position dependent scanning signals in the correction unit to correction data generated in accordance with active values of the scanning signals (fig. 1, unit 1, 2, 3, 4); and exclusively feeding scanning signals for generating correction data to the correction unit for at least one predefined time segment of finite length (fig. 5, unit 50) following each request of new scanning signals to be corrected (Col. 4-5, Lines 57-19, Col. 5-6, Lines 65-11).

FIG. 1



Art Unit: 2863

**Regarding claim 2:**

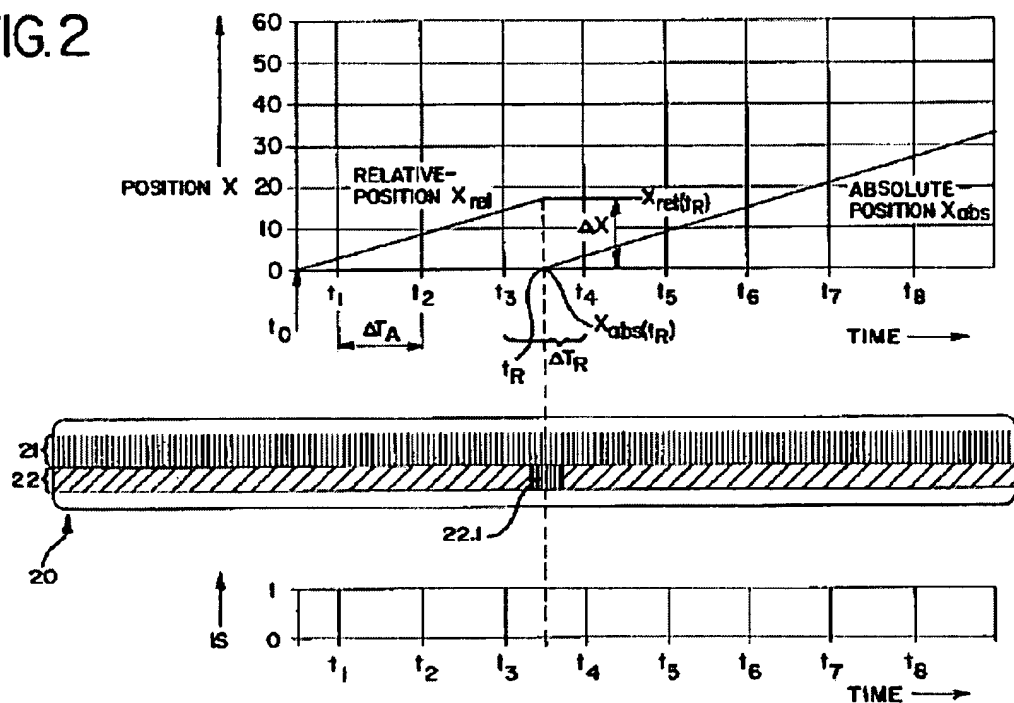
Hagl discloses a method for correcting position dependent scanning signals of an incremental position transducer for measuring position, the position dependent scanning signals having deviations from ideal signals expected by a downstream evaluation unit (fig. 1, unit 5, abstract), comprising: feeding the position dependent scanning signals of the incremental position transducer to a correction unit in response to a signal request (fig. 1, unit 4, 5, Col. 2-3, Lines 58-65); the incremental position transducer including a periodic scale structure scanned by a scanning unit (fig. 2); linking the position dependent scanning signals in the correction unit to correction data generated in accordance with active values of the

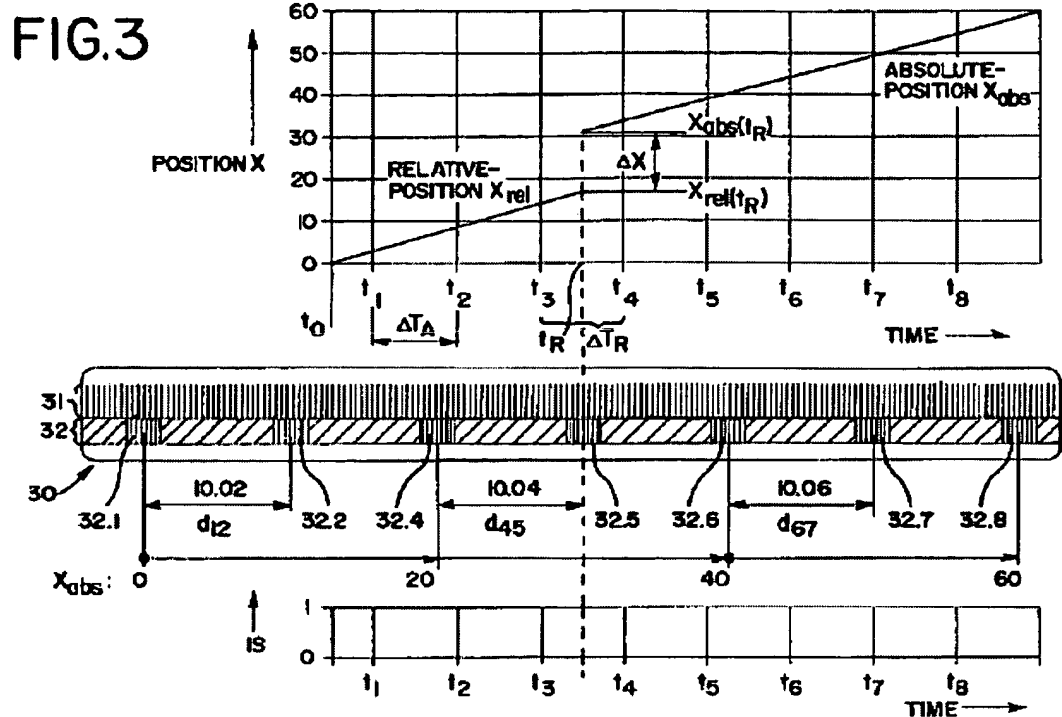
Art Unit: 2863

scanning signals (fig. 3, unit 30); and exclusively feeding scanning signals for generating correction data to the correction unit for at least one predefined time segment of finite length (fig. 3) following each request of new scanning signals to be corrected (Col. 4-5, Lines 57-19); and

Checking the signal requested by a logic device to determine whether the signal request applies to scanning signals that are to undergo a correction in the correction unit or to scanning signals for generating correction data (Col. 4-5, Lines 57-19, Col. 5-6, Lines 66-11).

FIG. 2





Regarding claim 11:

Hagl discloses a device for correcting position dependent scanning signals of an incremental position transducer for measuring position (Col. 2, Lines 58-65, fig. 1, unit 10), abstract), the position dependent scanning signals having deviations from ideal signals expected by a downstream evaluation unit (fig. 1, unit 5), comprising: an arrangement configured to perform a method including the steps of: feeding the position dependent scanning signals of the incremental position transducer to a correction unit in response to a signal request (Col. 4-5, Lines 57-20, Col. 5-6, Lines 66-18); the incremental position transducer including a periodic scale structure scanned by the scanning unit (fig. 1, unit 3); linking the scanning position

Art Unit: 2863

dependent signals in the correction unit to correction data generated in accordance with active values of the scanning signals (fig. 1, unit 5); and exclusively feeding scanning signals for generating data to the correction unit for at least one predefined time segment of finite length (fig. 5, unit 50) following each request of new scanning signals to be corrected (Col. 4-5, Lines 57-19, fig. 3, 5).

Regarding claim 12:

Hagl discloses a device for correcting position dependent scanning signals of an incremental position transducer for measuring position (fig. 1, unit 10) the position dependent scanning signals having deviations from ideal signals expected by a downstream evaluation unit (abstract), comprising: means for feeding the position dependent scanning signals of the incremental position transducer to a correction unit in response to a signal request the incremental position transducer including a periodic scale structure scanned by a scanning unit (fig. 1, unit 1, 2, fig. 5, unit 50); and means for linking the position dependent scanning signals in the correction unit to correction data generated in accordance with active values of the scanning signals (fig. 1, unit 5); and means for exclusively feeding scanning signals for generating data to the correction unit for at least one predefined time segment of finite length (fig. 5, unit 50) following each request of new scanning signals to be corrected (Col. 4-5, Lines 56-19).

Regarding claim 3, Hagl further discloses performing no signal requests for a predetermined time segment that apply to scanning signals to be corrected in the correction unit (fig. 5, unit 50).

Regarding claim 6, Hagl further discloses digitizing analog signals of the scanning signals (fig. 1, unit 1, 2) before the step of feeding the scanning signals to the correction unit (fig. 1, unit 5, Col. 3, Lines 13-15, where the incoming signals are analog that is phase shifted 90 degree and the processing unit is digital processor that executing formula 2 in Col. 5).

Regarding claim 7, Hagl further discloses the correction unit includes feeding at least two scanning signals to be corrected to the correction unit in response to request of scanning signals to be corrected, the two scanning signals being out-of-phase with each other (Col. 2, Lines 44-47, Col. 4-5, Lines 57-19).

Regarding claim 8, Hagl further discloses triggering the signal request by at least one of a microprocessor (Col. 5-6, Lines 65-19, fig. 1, unit 5, Col. 3, Lines 13-15) of the correction unit (fig. 1, unit 5) and an external pulse (fig. 1, unit 1, 2).

Regarding claim 9, Hagl further discloses generating the correction data as a function of active values of the scanning signals in a microprocessor (fig. 1, unit 10, 5, Col. 3, Lines 6-16, fig. 5).

Regarding claim 10, Hagl further discloses correcting the scanning signals in accordance with at least one predefined correction algorithm (Col. 4-5, Lines 57-19).

Response to Arguments

8. Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new ground(s) of rejection. However, applicant's arguments filed 05/18/2006 have been fully considered but they are not persuasive.

A. Applicant argues that the prior art does not show the 'exclusively feeding scanning signals for generating correction data to the correction unit for at least one predefined time segment of finite length' (page 8 of the applicant's remarks). Hagl discloses 'exclusively feeding scanning signals for generating correction data to the correction unit for at least one predefined time segment of finite length' in fig. 5, unit 50.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number

Art Unit: 2863

is 571-272-2274. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269.

The fax phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tung S. Lau

AU 2863, Patent examiner

June 13, 2006

A handwritten signature in black ink, appearing to read 'Tung S. Lau', with a stylized, cursive script.